

REMARKS

In the patent application, claims 1-30 are pending. In the office action, all pending claims are rejected.

Applicant has canceled claims 3, 20 and 25. Applicant has amended claims 1, 4, 5, 19, 21 and 24.

Claim 1 has been amended to include the limitations in claim 3. Claim 19 has been amended to include the limitation of claim 20 and claim 24 has been amended to include the limitation of claim 25.

Claims 4, 5, 21 and 26 have been amended to change the claim dependency.

No new matter has been introduced.

At section 2 of the office action, claims 1, 19, 24 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by *Agrawal et al.* (U.S. Patent Application Publication No. 2004/0024901, hereafter referred to as *Agrawal*).

In rejecting claims 1, 19, 24 and 27, the Examiner states that *Agrawal* discloses a method and apparatus for registering a home address as claimed (paragraphs [029], [0061] to [062]). Applicant respectfully disagrees.

It is respectfully submitted that, in paragraph [0029], *Agrawal* discloses the use of dynamic home agent (DHA) in a framework for IP-based mobility management for IMT-2000. In particular, for intra-domain or macro-mobility, DHAs reside in a serving network and are assigned by a visited Authentication, Authorization and Accounting (AAA) server. A DHA allows a roaming mobile node to gain a local accessing server provider. In order for a mobile node to be identified by a network access identifier (NAI) in the visiting or foreign network, the mobile node must send a registration message to the foreign agent, which in turn interacts with the AAA server residing in that network.

Paragraphs [0061] and [0062] describe the communications between the mobile node 246 and one or more network components in a foreign network 240 as shown in Figure 2. As shown in Figure 2, the home agent of the mobile node 246 is home agent 212 in the home network 210 of the mobile node 246. When the mobile node 246 roams

into a foreign network 240, the mobile node 246 sends a registration request 315 to a mobile agent (MA) 242. The mobile agent 242 replies with a shared care-of-address 320. The mobile node 242 may then send an update 325 to the home agent 212. The update 325 may include a registration request as specified in Mobile IP including a global care-of-address and a local care-of-address, and may request the home agent to create or modify the association in the home agent's table between the mobile node's home address and its global care-of-address (Figures 3A, 3B; paragraphs [0059], [0061], [0062]).

In the above paragraphs, *Agrawal* only discloses that when the mobile node is located in a foreign network, it sends a registration request to a mobile agent (MA) in the foreign network, and may send a request to its own home agent (212) for associating the mobile node's home address with the global care-of-address obtained from the mobile agent.

In contrast, according to the method and apparatus of the claimed invention, the mobile node sends a request to its home agent requesting registration of home address of the mobile node, and the home agent stores the home address of the mobile node, wherein the request includes a network access identity of mobile node and the home address to be registered.

Agrawal does not disclose these features.

For the above reasons, *Agrawal* fails to anticipate independent claims 1, 19, 24 and 27.

At section 4 of the office action claims 1-3, 6, 8-9, 19-20, 23-25 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by *Kakemizu et al.* (U.S. 2002/0006133, published January 17, 2002, hereafter referred to as *Kakemizu*).

Applicant has canceled claims 3, 20 and 25.

In rejecting claim 1, the Examiner states that *Kakemizu* discloses a method for registering a home address as claimed (paragraphs [0022], [0168], [0182], [0265] and [0311]; claims 1 and 2). Applicant respectfully disagrees.

It is respectfully submitted that claim 1 is concerned with registering a **home address** of a mobile node, including the following limitations:

conveying a request by the mobile node to a home agent in a network requesting registration of the home address of the mobile node;

authenticating the mobile node; and

storing the home address of the mobile node in the home agent, wherein the request includes a network access identity of the mobile node and the home address to be registered.

Kakemizu is concerned with registering a **location** of the mobile node (paragraphs [0022], [0168], claims 1 and 2).

In claim 2, *Kakemizu* discloses a method for providing a communications service in a communications system where a **location** of a mobile node is registered in a home agent by transmitting **location** registration request information from the mobile node to the home agent through a router device accommodating the mobile node and an authentication server, and returning **location** registration reply information corresponding to the **location** registration request information from the home agent to the mobile node through the authentication server and the router device. The method comprises the steps of:

transmitting the **location** registration request information and the **location** registration reply information using a header of a packet, respectively;

storing service control information for use in providing a communications service requested by the mobile node in a header of a packet for transfer of the **location** registration reply information from the authentication server to the router device, thereby distributing the service control information to the router device; and

controlling a packet to be transmitted or received by the mobile node according to the service control information.

Kakemizu only discloses how the location of a mobile node is registered.

Kakemizu does disclose the home address of a mobile node. For example, *Kakemizu* discloses that a home agent holds and manages the **home address** assigned for the mobile node and manages the **location** of the mobile node (paragraph [0122]); each router device provides the function of a home agent for the mobile node in which the home address is held and managed by the router device (paragraph [0126]); a visitor list in a proxy foreign agent stores a **home address** of a mobile node, which is an originally **assigned IP address** (paragraph [0181]); the mobility binding held by the home agent stores a home address of a mobile node, which is currently **assigned** to the mobile node when the mobile node exits its home network (paragraph [0182]).

Kakemizu also discloses that when a communications node transmits a data packet to mobile nodes, it transmits the data packet to the **home addresses** of the mobile nodes if it does not have binding cache for the mobile nodes. In such a case, the data packet is first transmitted to the home agent (paragraphs [0311], [0323]). With a binding update received from a mobile node, the communications node can recognize the **location** of the mobile node (paragraph [0320]).

According to *Kakemizu*, a home agent manages **both** the home address and the location of a mobile node (paragraph [0122], claims 22 and 27). This shows that the **location** of a mobile node is different from the **home address** of the mobile node.

As disclosed in *Kakemizu*, a home address of a mobile node is assigned (paragraphs [0181], [0182], [0425]). *Kakamitzu* does not disclose or suggest that a mobile node requests registration of a home address. More particularly, *Kakemizu* does not disclose or suggest that the home address of a mobile node is registered by conveying a request by the mobile node to a home agent in a network requesting registration of the **home address** of the mobile node; authenticating the mobile node; and storing the **home address** of the mobile node in the home agent, wherein the request includes a network access identity of the mobile node and the home address to be registered.

Kakemizu only discloses how the **location** of a mobile node is registered.

Claim 19 includes the limitations that the mobile node is adapted to send a request to the home agent requesting the registration of the home address associated with the mobile node and the home agent is adapted to authenticate the mobile node and to store the home address of the mobile node in the home agent.

As with claim 1 above, *Kakemizu* does not disclose or suggest that the home address of a mobile node is registered by conveying a request by the mobile node to a home agent requesting registration of the **home address** of the mobile node; authenticating the mobile node; and storing the **home address** of the mobile node in the home agent.

Claim 27 includes the limitations that the apparatus has means for sending a request to a home agent in a network for registering a home address of the apparatus with the home agent.

Kakemizu does not disclose or suggest that the home address of a mobile node is registered by conveying a request by the mobile node to a home agent requesting registration of the **home address** of the mobile node.

For the above, *Kamemizu* fails to anticipate independent claims 1, 19 and 27.

As for claims 2, 6, 8, 9 and 23-24, they are dependent from claims 1 and 19 and recite features not recited in claims 1 and 19. For reasons regarding claims 1 and 19 above, *Kamemizu* also fails to anticipate claims 2, 6, 8, 9, and 23-24.

At section 5, claims 4-5, 7-8, 10, 11, 15-18, 21-23, 26 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kamemizu*, in view of *Ohki* (U.S. Patent Application Publication No. 2004/00137888).

The Examiner cites *Ohki* for disclosing the feature that the mobile node is authenticated using security information based on the network access identity.

It is respectfully submitted that claims 4-5, 7-8, 10, 11, 15-18, 21-23, 26 and 28-30 are dependent from claims 1, 19 and 27 and recite features not recited in claims 1, 19

and 27. For reasons regarding claims 1, 19 and 27 above, *Kamemizu*, in view of *Ohki*, fails to render claims 2, 3, 6, 8, 9, 20 and 23-25 obvious.

At section 6, claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kamemizu*, in view of *Kamemizu* (U.S. Patent Application Publication No. 2001/0036164, hereafter referred to as *Kamemizu*'164). The Examiner cites *Kamemizu*'146 for disclosing the feature of the lifetime being refreshed.

It is respectfully submitted that claims 12 and 13 are dependent from claim 1 and recite features not recited in claim 1. For reasons regarding claim 1 above, *Kamemizu*, in view of *Kamemizu*'146, fails to render claim 12 and 13 obvious.

At section 7, claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Kamemizu*, in view of *Akhtar* (U.S. Patent No. 7,079,499, hereafter referred to as *Akhtar*). The Examiner cites *Akhtar* for disclosing the feature of authentication using a hash function.

It is respectfully submitted that claim 14 is dependent from claim 1 and recites features not recited in claim 1. For reasons regarding claim 1 above, *Kamemizu*, in view of *Akhtar*, fails to render claim 14 obvious.

CONCLUSION

Claims 1, 2, 4-19, 21-24, 26-30 are allowable. Early allowance of claims 1, 2, 4-19, 21-24, 26-30 is earnestly solicited.

Respectfully submitted,



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